



BSED SCIENCE LET Drill (2026)

50 ITEMS WITH EXPLANATION
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1. Which statement/s is/are TRUE of adaptation?
 - I. An adaptation is a mutation.
 - II. It is a genetic change.
 - III. Due to the helpful nature of the mutation, it is passed down from one generation to the next.
 - IV. A mutation is inherited and so becomes an adaptation.
 - A. I and II only
 - B. II and III only
 - C. I, II, and III only
 - D. I, II, III, and IV
2. Which of the following is NOT an example of behavioral adaptation?
 - A. Fur on a bear
 - B. Migration of birds
 - C. Opossum playing dead
 - D. Rabbit freezing when it thinks it has been seen
3. A chameleon changing colors to blend in with its surroundings is an example of
 - A. Camouflage
 - B. Extinction
 - C. Hibernation
 - D. Migration
4. Which process do some animals undergo when they go into a deep winter sleep and their body functions slow down, allowing them to survive on stored food?
 - A. Camouflage
 - B. Extinction
 - C. Hibernation
 - D. Migration
5. Which adaptation is used by the viceroy butterfly when it copies the monarch butterfly to avoid predators?
 - A. Camouflage
 - B. Mimicry
 - C. Play dead
 - D. Venom
6. There is unity in diversity in the study of biology. Which statement explains this?



- A. All living beings can be different but simultaneously have something essential in common.
 - B. Living beings have structures unique to each.
 - C. No living being can live alone.
 - D. Living things need one another.
7. Which statement/s explain the complementarity of structure and function?
- I. Function always reflects structure.
 - II. The physiology of a body part is determined by its anatomy.
 - III. The function of a body part depends on its structure.
- A. I, II, and III
 - B. I and II
 - C. II and III
 - D. I and III
8. The sharp incisors can tear food, while the flat molars can grind food into smaller pieces. Since molars are near the jaw hinge, they exert strong force useful for chewing plants. What does this show?
- A. Function is dependent on structure.
 - B. Structure does not relate to its function.
 - C. Structure and function evolve.
 - D. Structure and function are poles apart.
9. Which of the following is TRUE?
- A. A molecule consists of two or more atoms of the same or different elements.
 - B. Molecules fuse together to form atoms, which come together to form electrons.
 - C. Electrons and protons combine to form molecules, which come together to form atoms.
 - D. Protons are the fundamental structural units of elements, and each proton retains all the properties of its element.
10. Which of the following is NOT an important electrolyte in the body?
- A. Carbon ions
 - B. Chloride ions
 - C. Potassium ions
 - D. Sodium ions
11. What is atomic mass?
- A. The sum of electrons and protons
 - B. The sum of electrons and neutrons
 - C. The total number of protons and neutrons
 - D. The difference between the number of protons and neutrons
12. Glucose is a carbohydrate with the chemical formula $C_6H_{12}O_6$. What does this mean?
- A. It contains 6 protons of carbon and oxygen and 12 protons of hydrogen.



- B. It contains 6 atoms of carbon, 12 atoms of hydrogen, and 6 atoms of oxygen.
- C. It contains 6 molecules of carbon, 12 molecules of hydrogen, and 6 molecules of oxygen.
- D. The atomic mass of hydrogen is equal to the sum of the atomic masses of carbon and oxygen.
13. How many atoms of each element are present in $2\text{Al}_2(\text{SO}_4)_3$?
- A. 2 Al, 3 S, and 7 O
- B. 4 Al, 3 S, and 7 O
- C. 4 Al, 3 S, and 12 O
- D. 4 Al, 6 S, and 24 O
14. In the equation $\text{AgNO}_3 + \text{NaCl} \rightarrow \text{AgCl}\downarrow + \text{NaNO}_3$, what does the symbol $\downarrow$ represent?
- A. Aqueous solution
- B. Gas evolves
- C. Heat is supplied
- D. Precipitate is formed
15. Where are non-metals located in the periodic table?
- A. Bottom part
- B. Left side
- C. Middle portion
- D. Right side
16. Oxygen belongs to Group VI-A in the periodic table. What does this group number indicate?
- A. Energy level
- B. Number of protons
- C. Oxidation number
- D. Valence electrons
17. How is the modern periodic table arranged?
- A. Increasing atomic mass
- B. Based on the year discovered
- C. Increasing atomic number
- D. Decreasing electronegativity
18. Which type of chemical bond is crucial in shaping tertiary and quaternary proteins, chromosomes, and muscle contraction?
- A. Covalent
- B. Hydrogen
- C. Ionic
- D. Polar covalent
19. Which type of chemical bonding occurs in water (H_2O)?
- A. Covalent
- B. Hydrogen



- C. Ionic
- D. Polar covalent

20. The molecular structure of carbon dioxide is $O=C=O$. What does this indicate?
- A. It is formed through ionic bonding.
 - B. It has a stronger bond than carbon monoxide.
 - C. It is composed of two oxygen atoms and one carbon atom.
 - D. Carbon forms a double bond with each oxygen atom.
21. What does a niche include?
- I. Interaction with the environment
 - II. Habitat
 - III. Place in the food chain
- A. I, II and III
 - B. I and II
 - C. I and III
 - D. II and III
22. What happens when two organisms occupy the same ecological niche?
- A. Both organisms will die.
 - B. It will result in mutualism.
 - C. Competition will be very intense.
 - D. They will connive to widen their habitat.
23. In which biome can you see animals that burrow or seek shelter during the day, then become active at night?
- A. Deciduous forest
 - B. Desert
 - C. Savanna
 - D. Taiga
24. Which biome is the coldest?
- A. Temperate coniferous forest
 - B. Temperate grassland
 - C. Tropical rainforest
 - D. Tundra
25. Why is the Philippines classified as a tropical rainforest?
- I. Located close to the equator
 - II. Surrounded by vast oceans
 - III. Rich in second growth forests
 - IV. Receives high rainfall
- A. I and IV
 - B. III and IV
 - C. I, II, and III
 - D. I, II, and IV
26. What is being shown in the renewal of a forest after a fire?
- A. Autogenic succession
 - B. Allogenic succession



- C. Primary succession
 - D. Secondary succession
27. What is the initial establishment of a plant community in a new area?
- A. Aggregation
 - B. Ecesis
 - C. Invasion
 - D. Nudation
28. Which of the following is an example of primary succession?
- A. A barren land
 - B. Formation of a new island
 - C. Evolution of a new animal species
 - D. Renewal of a crop after harvesting
29. Development that meets the needs of the present without compromising the ability of future generations to meet their own needs aptly describes
- A. Ecological development
 - B. Environmental integrity
 - C. Environmental potential
 - D. Sustainable development
30. Which of the following environmental conditions has been blamed for the usual occurrence of fish kills in our lakes?
- A. Acid rain
 - B. Atmospheric pollution
 - C. Eutrophication
 - D. Silting of lakes
31. Which of the following are facts about carbon?
- I. It can exist in an amorphous state.
 - II. It forms strong ionic bonds with a variety of elements.
 - III. It has a unique ability to bond to itself in long chains.
 - IV. It has a very low melting point and sublimation point.
- A. I and II
 - B. I and III
 - C. II and III
 - D. I, III, and IV
32. Carbon can exist with several different structures and so its atoms are arranged differently. What is this unique property of carbon?
- A. Allotropy
 - B. Impenetrability
 - C. Viscosity
 - D. Volatility
33. Which carbon is used as pigment in black ink/s?
- A. Carbon black
 - B. Charcoal
 - C. Coke
 - D. Graphite
34. Water can be described as an amphoteric molecule. What does this mean?
- A. It is tasteless and odorless.
 - B. It can react both as an acid or a base.
 - C. It can exist as a solid, liquid, or gas.
 - D. It can dissolve many substances found in nature.



35. What is the state of matter of water at 25 degrees Celsius?
- A. Gas
 - B. Liquid
 - C. Plasma
 - D. Solid
36. Water is a polar molecule. What does this mean?
- A. Water is a molecule with no charge.
 - B. It has identical charges at opposite ends.
 - C. It has opposite charges at opposite ends.
 - D. It has an unequal number of protons and electrons.
37. Which formula represents a saturated hydrocarbon?
- A. C_2H_2
 - B. C_2H_4
 - C. C_3H_6
 - D. C_3H_8
38. Among the members of the alkane family, which is similar?
- A. Condensed formula
 - B. General formula
 - C. Molecular formula
 - D. Structural formula
39. Which of the following is an organic compound?
- A. Lime (CaO)
 - B. Methane (CH_4)
 - C. Salt ($NaCl$)
 - D. Sulfuric acid (H_2SO_4)
40. A liquid is dissolved in water and was found out to have a general formula of $R-OH$. What could be the name of the liquid?
- A. Methane
 - B. Methanol
 - C. Methanoic acid
 - D. Methyl methanoate
41. Equal amounts of copper(II) sulfate solution and sodium tartrate solution were added to the test solution. After boiling, a positive result is indicated by the formation of a brick-red precipitate of copper(I) oxide. The test showed that the solution contains reducing sugar and aldehydes. What test of organic compounds is being described?
- A. Barfoed's Test
 - B. Fehling's Test
 - C. Molisch Test
 - D. Resorcinol Test
42. What do some monerans form to survive in unfavorable conditions?
- A. Hyphae
 - B. Endospores
 - C. Plasmid
 - D. Vaccines
43. Which of the following is NOT a characteristic of an active virus?
- A. It multiplies quickly.
 - B. It uses energy to grow.



- C. It destroys its host cell.
 - D. It has an outer coat made of proteins.
44. Which of the following is a characteristic of all protists?
- A. Eukaryotic
 - B. Heterotrophic
 - C. Multicellular
 - D. Prokaryotic
45. All of the following describe a fungus EXCEPT
- A. Autotrophic
 - B. Eukaryotic
 - C. Heterotrophic
 - D. Reproduces with spores
46. Which are often described by scientists as extremophiles?
- A. Archaea
 - B. Bacteria
 - C. Chemotrophs
 - D. Phototrophs
47. Most monerans reproduce asexually through binary fission. What is binary fission?
- A. It is a reproduction from an ovum without fertilization.
 - B. It is a process of exchanging genetic material through cell-to-cell contact.
 - C. It is a process that replicates DNA and distributes it into two daughter cells.
 - D. It is an asexual reproduction in which the organism is split into two fragments.
48. Under which group are asymmetrical, single-celled organisms with a feeding groove excavated from one side classified?
- A. Amoebozoa
 - B. Excavata
 - C. Opisthokonta
 - D. Rhizaria
49. Which of the following belongs to the eukaryotic supergroup Chromalveolata?
- A. Euglena
 - B. Paramecium
 - C. Red Algae
 - D. Slime molds
50. Which pair of classification is CORRECT?
- A. Archaeplastida: Fungi
 - B. Excavata: Dinoflagellates
 - C. Rhizaria: Land plants
 - D. Opisthokonta: Animals



Answer Key:

1. **C. I, II, and III only** – Adaptations begin as mutations, which are genetic changes. If advantageous, they are passed down and become adaptations.
2. **A. Fur on a bear** – Fur is a structural trait, while the others are behavioral.
3. **A. Camouflage** – Chameleons change color to hide from predators.
4. **C. Hibernation** – A survival strategy where body functions slow during winter.
5. **B. Mimicry** – The viceroy copies the monarch to avoid being eaten.
6. **A. All living beings can be different but simultaneously have something essential in common.** – Despite diversity, all organisms share fundamental traits.
7. **A. I, II, and III** – Structure and function are inseparable; one reflects the other.
8. **A. Function is dependent on structure.** – Teeth shapes directly match their roles.
9. **A. A molecule consists of two or more atoms of the same or different elements.** – Molecules are groups of atoms bonded together.
10. **A. Carbon ions** – Carbon is not a typical body electrolyte, unlike sodium, potassium, and chloride.
11. **C. The total number of protons and neutrons** – Atomic mass equals protons plus neutrons.
12. **B. 6 atoms of carbon, 12 of hydrogen, and 6 of oxygen** – The formula shows the composition of one glucose molecule.
13. **D. 4 Al, 6 S, and 24 O** – The coefficient multiplies each atom count in the compound.
14. **D. Precipitate is formed** – The downward arrow means an insoluble solid appears.
15. **D. Right side** – Non-metals are on the right side of the periodic table.
16. **D. Valence electrons** – Group number indicates electrons in the outermost shell.
17. **C. Increasing atomic number** – The modern periodic table is arranged by proton count.
18. **B. Hydrogen** – These weak bonds help maintain shapes of proteins, DNA, and assist muscle contraction.



- 19.**D. Polar covalent** – Oxygen and hydrogen share electrons unequally in water.
- 20.**D. Carbon forms a double bond with each oxygen atom.** – The $O=C=O$ structure shows two double bonds.
- 21.**A (I, II and III)** – A niche includes the habitat, role in the food chain, and interactions with both living and non-living elements.
- 22.**C (Competition will be very intense)** – Two species can't share the same niche long-term; they will compete strongly until one dominates.
- 23.**B (Desert)** – Desert animals avoid daytime heat by hiding or burrowing, then becoming active at night.
- 24.**D (Tundra)** – The tundra is the coldest biome, with freezing conditions and little vegetation.
- 25.**D (I, II, and IV)** – The Philippines is tropical rainforest due to its equatorial location, surrounding oceans, and high rainfall.
- 26.**D (Secondary succession)** – Forest regrowth after fire is secondary succession since soil and roots remain.
- 27.**B (Ecesis)** – Ecesis refers to the first successful establishment of plants in a new area.
- 28.**B (Formation of a new island)** – Primary succession occurs on new surfaces like volcanic islands or glacial retreats.
- 29.**D (Sustainable development)** – Meeting present needs without harming future generations is sustainable development.
- 30.**C (Eutrophication)** – Excess nutrients in lakes cause oxygen depletion and fish kills.
- 31.**B (I and III)** – Carbon can exist in amorphous form and bond with itself in long chains; it forms covalent, not ionic bonds.
- 32.**A (Allotropy)** – Carbon's ability to exist in forms like diamond, graphite, and fullerenes is called allotropy.
- 33.**A (Carbon black)** – Carbon black is used as black pigment in inks and rubber.
- 34.**B (It can react both as an acid or a base)** – Amphoteric substances like water can act as both acid and base.
- 35.**B (Liquid)** – At 25°C (room temperature), water naturally exists as liquid.
- 36.**C (It has opposite charges at opposite ends)** – Water is polar because oxygen is partially negative, while hydrogens are partially positive.
- 37.**D (C_3H_8)** – Saturated hydrocarbons (alkanes) follow the formula $\text{C}_n\text{H}_{2n+2}$; propane (C_3H_8) fits.
- 38.**B (General formula)** – All alkanes share the general formula $\text{C}_n\text{H}_{2n+2}$.
- 39.**B (Methane, CH_4)** – Organic compounds contain C–H bonds; methane is the simplest organic compound.
- 40.**B (Methanol)** – The general formula R–OH denotes an alcohol; with one carbon, it is methanol.
- 41.**B (Fehling's Test)** – Fehling's test detects reducing sugars and aldehydes. A positive result shows a brick-red precipitate of copper(I) oxide after heating.
- 42.**B (Endospores)** – Some bacteria (monerans) form tough endospores to survive extreme heat, dryness, or chemicals until conditions improve.



- 43.**B (It uses energy to grow)** – Viruses do not carry out their own life processes like growth or energy use; they rely entirely on a host cell.
- 44.**A (Eukaryotic)** – All protists are eukaryotes, meaning their cells have a nucleus and organelles, though they differ in nutrition and structure.
- 45.**A (Autotrophic)** – Fungi are heterotrophic, not autotrophic. They absorb nutrients from organic matter and cannot produce their own food.
- 46.**A (Archaea)** – Archaea are often extremophiles, thriving in extreme heat, acidity, salinity, or oxygen-poor environments.
- 47.**C (It is a process that replicates DNA and distributes it into two daughter cells)** – Binary fission is an asexual process where a bacterial cell divides into two genetically identical cells.
- 48.**B (Excavata)** – The group Excavata includes asymmetrical, single-celled organisms with a characteristic “excavated” feeding groove.
- 49.**B (Paramecium)** – Paramecium belongs to the Chromalveolata supergroup. Euglena is in Excavata, red algae in Archaeplastida, and slime molds in Amoebozoa.
- 50.**D (Opisthokonta: Animals)** – Opisthokonta includes animals and fungi. The other pairings (Archaeplastida: Fungi, Excavata: Dinoflagellates, Rhizaria: Land plants) are incorrect.

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